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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/551,562	03/19/2007	Yutaka Naruse	Q90764	5587

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EXAMINER	
ARTHUR JEANGLAUDE, GERTRUDE	

ART UNIT	PAPER NUMBER
3661	

MAIL DATE	DELIVERY MODE
08/13/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/551,562	NARUSE ET AL.	
	Examiner	Art Unit	
	GERTRUDE ARTHUR JEANGLAUD	3661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 June 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4,5 and 7-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4,5 and 7-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *03 October 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

Specification

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The abstract should be one paragraph. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-2, 4-5, 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Naruse et al. (U.S. Patent No. 6,374,159) in view of Isono (U.S. Pub No. 20030000316).

Regarding claim 1, Naruse et al. disclose a vehicle state analyzing method, comprising a suspension/chassis setting step for setting an optimum alignment state in

a suspension/chassis of a vehicle; Naruse does not specifically disclose an initialize mode measuring step and a monitor mode measuring step. However, Naruse et al. disclose values of the measurement of lateral force from the first timing to the second timing which is well considered as an initialize mode measuring step in which a lateral force is measured, by using a force sensor for detecting input of force from a wheel to a vehicle body, when the vehicle is set is run on a road surface as reference under a predetermined condition, and deviation of fluctuation or fluctuation rate of the lateral force with respect to the optimum alignment state is measured ; a monitor mode measuring step considered as the second timing in which the lateral force is measured, by using the force sensor, when the vehicle thereafter is run on a road surface (wherein one of ordinary skill in the art would consider a substantially flat road surface), and deviation of fluctuation rate of the lateral force with respect to the optimum alignment state is measured (See col. 26, lines 11-22). Naruse discloses an analyzing step (comparing) (See col. 10, lines 28-45) in which change of the alignment state of the vehicle is analyzed on the basis of ratio of the deviation obtained at the monitor mode measuring step with respect to the deviation obtained at the initialize mode measuring step. (col. 6, lines 48-56). Though Naruse et al. disclose the lateral force is detected and acted on the wheel, it does not specifically disclose a lateral force between a wheel and a vehicle body us measured by using a force sensor. In an analogous art, Isono discloses lateral force is detected and acted on the wheel, and a vehicle body is measured, by using a force sensor for detecting input force from a wheel to the vehicle body (See abstract; paragraph 0010, 0025, 0027, 0029). It would have been obvious to

one of ordinary skill in the art at the time of the invention to modify the system of Naruse et al. with that of Isono by having a lateral force between the wheel and vehicle body measured in order to improve the accuracy of detection of force acting on the vehicle wheel.

As to claim 2, Naruse et al. disclose the deviation of fluctuation or the fluctuation rate of the lateral force is measured when normal running of the vehicle (See col. 3, lines 33-46; col. 6, lines 48-56).

As to claims 4, 7, Naruse et al. disclose a vehicle state analyzing system for analyzing state of a vehicle having wheels, comprising a force sensor for detecting input force (See Fig. 11 #124); initialize mode memory means in which a lateral force is measured by using the force sensor for detecting input of force from the wheel to the vehicle body, when the vehicle is set to an optimum alignment state is run on a road surface (wherein on of ordinary skill in the art would consider a substantially flat road) as reference under a predetermined condition and deviation of fluctuation or fluctuation rate of the lateral force with respect to the optimum alignment state is measured, and stored (See Fig. 11; col. 4, lines 37-46); Although Naruse et al does not specifically disclose initialize mode memory means and monitor mode memory means, it discloses a memory means (Fig. 11 #136), wherein one of ordinary skill in the art would use such memory means for initialize mode and monitor mode as it contains the results of measurement (from initializing to monitoring) of lateral force of each of reference wheel; Naruse et al. disclose monitor mode memory means in which the lateral force is measured, by using the force sensor, when the vehicle thereafter is run on the road

surface and deviation of fluctuation or fluctuation rate of the lateral force with respect to the optimum alignment state is measured, and stored (See Fig. 11, 15C; col. 3, lines 5-12; col. 6, lines 48-56); Naruse et al. disclose analyzing computation means in which change of the alignment state of the vehicle is analyzed on the basis of ratio of the deviation stored in the monitor mode memory means with respect to the deviation stored in the initialize mode memory means; (See Fig.12 #162 for the computation means); and information output means (display See Fig. 12 # 164) for outputting at least one of the information stored in the initialize mode memory means, the information stored in the monitor mode memory means and the result of analysis obtained by the analyzing computation means. Though Naruse et al. disclose the lateral force is detected and acted on the wheel, it does not specifically disclose a lateral force between a wheel and a vehicle body us measured by using a force sensor. In an analogous art, Isono discloses lateral force is detected and acted on the wheel, and a vehicle body is measured, by using a force sensor for detecting input force from a wheel to the vehicle body (See abstract; paragraph 0010, 0025, 0027, 0029). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Naruse et al. with that of Isono by having a lateral force between the wheel and vehicle body measured in order to improve the accuracy of detection of force acting on the vehicle wheel.

As to claim 5, Naruse et al. disclose the force sensor is provided in the vehicle, the initialize mode memory means, the monitor mode memory means, the analyzing

computation means, and the information output means are provided outside the vehicle (See Fig. 11).

As to claim 8, Naruse et al. disclose a display means (See # 134, Fig. 11) for displaying the state of the vehicle obtained by the analyzing computation means (Col. 27, lines 10-19).

As to claim 9, Naruse et al. disclose adjustment means for automatically adjusting alignment of a suspension on the basis of the vehicle analyzed by the analyzing computation means (See col. 6, lines 48-60; Fig. 11).

As to claim 10, Naruse et al. disclose a vehicle state management comprising a vehicle state analyzing system for analyzing state of a vehicle having wheels, comprising a force sensor for detecting input force from the wheel to a vehicle body (See Fig. 11 #124); initialize mode memory means in which a lateral force is measured by using the force sensor for detecting input of force from the wheel to the vehicle body, when the vehicle is set to an optimum alignment state is run on a road surface as reference under a predetermined condition and deviation of fluctuation or fluctuation rate of the lateral force with respect to the optimum alignment state is measured, and stored (See Fig. 11; col. 4, lines 37-46); Although Naruse et al does not specifically disclose initialize mode memory means and monitor mode memory means, it discloses a memory means (Fig. 11 #136), wherein one of ordinary skill in the art would use such memory means for initialize mode and monitor mode as it contains the results of measurement (from initializing to monitoring) of lateral force of each of reference wheel; Naruse et al. disclose monitor mode memory means in which the lateral force is

measured, by using the force sensor, when the vehicle thereafter is run on the road surface and deviation of fluctuation or fluctuation rate of the lateral force with respect to the optimum alignment state is measured, and stored (See Fig. 11, 15C; col. 3, lines 5-12; col. 6, lines 48-56); Naruse et al. disclose analyzing computation means in which change of the alignment state of the vehicle is analyzed on the basis of ratio of the deviation stored in the monitor mode memory means with respect to the deviation stored in the initialize mode memory means; (See Fig.12 #162 for the computation means); and information output means (display See Fig. 12 # 164) for outputting at least one of the information stored in the initialize mode memory means, the information stored in the monitor mode memory means and the result of analysis obtained by the analyzing computation means; Naruse et al. also disclose a vehicle testing apparatus having a road surface for running which causes the wheels to be rotated, detecting the state of the vehicle from outside, and being capable of storing the state of the vehicle detected from the outside and the state of the vehicle analyzed by the vehicle state analyzing system (See col. 9, lines 25-50). Though Naruse et al. disclose the lateral force is detected and acted on the wheel, it does not specifically disclose a lateral force between a wheel and a vehicle body us measured by using a force sensor. In an analogous art, Isono discloses lateral force is detected and acted on the wheel, and a vehicle body is measured, by using a force sensor for detecting input force from a wheel to the vehicle body (See abstract; paragraph 0010, 0025, 0027, 0029). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Naruse et al. with that of Isono by having a lateral force between the wheel

and vehicle body measured in order to improve the accuracy of detection of force acting on the vehicle wheel.

Response to Arguments

Applicant's arguments with respect to claims 1-2, 4-5, 7-10 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GERTRUDE ARTHUR JEANGLAUD whose telephone number is (571)272-6954. The examiner can normally be reached on Monday-Friday from 8:30 a.m. to 6:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on (571) 272-6956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Gertrude Arthur-Jeanglaude/
Primary Examiner, Art Unit 3661